

WHAT IS CLAIMED IS:

1. A medical article lubricant composition having a delivery vehicle for a pharmacological additive comprising:

a solvent selected from the group consisting of tetrahydrofuran, dimethylformamide, methylene chloride and cyclohexanone, hydrophilic polymer, isocyanate-terminated prepolymer and alkylester of a carboxylic acid; and

a pharmacological additive.

2. The composition of claim 1 wherein said hydrophilic polymer is selected from the group consisting of polyvinylpyrrolidone, polyvinyl alcohol, polyacrylic acid and polyethylene oxide.

3. The composition of claim 1 wherein said hydrophilic polymer is polyvinylpyrrolidone.

4. The composition of claim 1 wherein said alkylester of a carboxylic acid is selected from the group consisting of ethyl lactate, methylbenzoate and propolyacrylate.

5. The composition of claim 1 further comprising urethane.

6. The composition of claim 1 wherein said alkylester of a carboxylic acid is selected from the group consisting of C1-12 alkylesters of carboxylic acids.

7. The composition of claim 1 wherein said isocyanate-terminated prepolymer is selected from the group consisting of polyoxyethylene-based isocyanate prepolymers, toluene and isophorone diisocyanate-based prepolymers and hexamethylene isocyanate-terminated polyether prepolymer.

8. The composition of claim 1 wherein said pharmacological additive is an anti-microbial selected from a group consisting of chlorhexidine acetate, chlorhexidine gluconate, chlorhexidine hydrochloride, chlorhexidine sulfate, silver acetate, silver benzoate, silver carbonate, silver iodate, silver iodide, silver lactate, silver chloride, silver laurate, silver nitrate, silver oxide, silver palmitate, silver protein, silver sulfadiazine, polymyxin, tetracycline, tobramycin, gentamicin, rifampicin, bacitracin, neomycin, chloramphenicol, oxolinic acid, norfloxacin, nalidixic acid, pefloxacin, enoxacin and ciprofloxacin, penicillin, ampicillin, amoxicillin, piracil, cephalosporins and vancomycin.

9. A method for producing a lubricant composition for a medical article containing a pharmacological additive comprising:

blending a solvent selected from the group consisting of tetrahydrofuran, dimethylformamide, methylene chloride, cyclohexanone, hydrophilic polymer, isocyanate-terminated prepolymer, alkylester of a carboxylic acid and a pharmacological additive until dissolved.

10. The method of claim 9 wherein said hydrophilic polymer is selected from the group consisting of polyvinylpyrrolidone, polyvinyl alcohol, polyacrylic acid and polyethylene oxide.

11. The method of claim 9 wherein said hydrophilic polymer is polyvinylpyrrolidone.

12. The method of claim 9 wherein said alkylester of a carboxylic acid is selected from the group consisting of ethyl lactate, methylbenzoate and propylacrylate.

13. The method of claim 9 further comprising the step of adding urethane.

14. The method of claim 13 wherein ratio of said urethane to pre-polymer is adjusted to achieve appropriate pharmacokinetics release rate of said pharmacologic additive.

15. The method of claim 9 wherein said alkylester of a carboxylic acid is selected from the group consisting of C1-12 alkylesters of carboxylic acids.

16. The method of claim 9 wherein said isocyanate-terminated prepolymer is selected from the group consisting of polyoxyethylene-based isocyanate prepolymers, toluene and

isophorone diisocyanate-based prepolymers and hexamethylene isocyanate-terminated polyether prepolymer.

17. The method of claim 9 wherein said pharmacological additive is an anti-microbial selected from a group consisting of chlorhexidine acetate, chlorhexidine gluconate, chlorhexidine hydrochloride, chlorhexidine sulfate, silver acetate, silver benzoate, silver carbonate, silver iodate, silver iodide, silver lactate, silver chloride, silver laurate, silver nitrate, silver oxide, silver palmitate, silver protein, silver sulfadiazine, polymyxin, tetracycline, tobramycin, gentamicin, rifampicin, bacitracin, neomycin, chloramphenicol, oxolinic acid, norfloxacin, nalidixic acid, pefloxacin, enoxacin and ciprofloxacin, penicillin, ampicillin, amoxicillin, piraricil, cephalosporins and vancomycin.

18. A medical article lubricant composition having a delivery vehicle for a pharmacological additive comprising:

a solvent selected from the group consisting of, an alkylbenzene, a hydrophilic polymer, isocyanate-terminated prepolymer, alkylester of a carboxylic acid and a pharmacological additive.

19. A method of controlling the release rate of a pharmacological additive from a lubricious coating vehicle comprising:

determining the therapeutic dosing range;

determining the desired pharmacokinetic properties of the pharmacological additive; and

adjusting the ratio of urethane to pre-polymer to achieve the appropriate pharmacokinetics.